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# Gramineae Pollen in London 7. Effect of wind speed

L P Smith

If the pollen units after the "start" in June (mean daily counts divided by seasonal total in thousands) are examined in relation to the midday wind speed reported at Kew, adjustment being made for wind direction, the following results are obtained:-

(all days with day rain over 2mm were omitted)

| Midday Wind Speed (knots) | Mean number of units | Mean day maximum (°C) | Total number of occasions |
|---|---|---|---|
| 0-3 | 44 | 22.8 | 23 |
| 4-7 | 36 | 21.8 | 49 |
| 8-14 | 28 | 21.0 | 116 |
| 15 or more | 24 | 20.6 | 22 |

If the previously found dependence on maximum temperature of 4 units per degree is applied the wind speed factor becomes -0.8 units per knot.

Corrected to a base of 22°C day maximum the averages would be

0-3k: 41. 4-7k: 37. 8-14k: 32. 15k or more: 29½.

The implication that pollen counts are highest at low speeds cannot be a reflection of pollen release mechanism. It must imply that the stronger the wind, then the greater is the vertical mixing of the pollen and hence the lower concentrations at sample level.

Any comments or suggestions on this paper should be referred to the author.

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